

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DAB:AMM:FP18426	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU2003/001303	International Filing Date (day/month/year) 3 October 2003	Priority Date (day/month/year) 4 October 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ C07D 239/91, 239/88, 239/74, 239/94, 241/42, 241/44, 241/46, 237/28, 219/06, 471/04, 471/14, 487/04, 491/052, A61K 31/436, 31/4375, 31/47, 31/473, 31/4745, 31/498, 31/4985, 31/50, 31/5025, 31/517, 31/519, A61P 25/28		
Applicant PRANA BIOTECHNOLOGY LIMITED et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

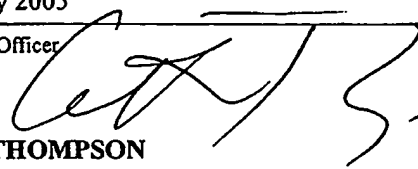
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 19 sheet(s).

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 2 April 2004	Date of completion of the report 19 January 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  GAVIN THOMPSON Telephone No. (02) 6283 2240

I. Basis of the report**1. With regard to the elements of the international application:***

- ☐ the international application as originally filed.
- ☒ the description, pages 1-5, 8-10, 12, 14-15, 18-161 as originally filed,
pages , filed with the demand,
pages 6, 6a, 7, 11, 13, 16-17 received on 31 December 2004 with the letter of 31 December 2004
- ☒ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages 162-173 received on 31 December 2004 with the letter of 31 December 2004
- ☒ the drawings, pages 1/5-5/5 as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 3, 8-9, 30, 32, 34	YES
	Claims 1-2, 4-7, 10-29, 31, 33	NO
Inventive step (IS)	Claims 3, 8-9, 30, 32, 34	YES
	Claims 1-2, 4-7, 10-29, 31, 33	NO
Industrial applicability (IA)	Claims 1-34	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

The following documents from the International Search Report are still relevant:

D2 WO 1996/022990

D9 WO 1995/012417

D3 EP 290 819

D14 Chemical Abstracts abstract 45:47030

Novelty (N)

Claims 1, 2, 4-7, 10-29, 31, 33

D2 discloses a number of substituted quinolinone compounds (examples 1-3, 21-23) and their uses, which fall within the scope of these claims.

Claims 1, 5-7, 10-29, 33

D3 discloses (and provides enabling disclosure for) substituted pteridine compounds (where Y is OH; see table 1 No. 1-10, 13, 14), and their uses, which fall within the scope of these claims.

Claims 1, 5-6, 10-29, 33

D9 discloses two substituted quinoxalinedione compounds (48 and 49, see pages 117, 119-120), which fall within the scope of these claims.

Claims 29, 33

D14 discloses 1, 6-Naphthyridine-7-carboxylic acid, 4-chloro-5, 8-dihydroxy-, methyl ester;

1, 6-Naphthyridine-7-carboxylic acid, 5, 8-dihydroxy-, acetate;

1, 6-Naphthyridine-7-carboxylic acid, 5, 8-dihydroxy-, methyl ester;

1, 6-Naphthyridine-7-carboxylic acid, 5-chloro, 8-methoxy-, methyl ester;

1, 7-Naphthyridine-5-carboxylic acid, 4-chloro-5, 8-dihydroxy-, methyl ester;

1, 7-Naphthyridine-6-carboxylic acid, 5, 8-dihydroxy-, acetate;

1, 7-Naphthyridine-6-carboxylic acid, 5, 8-dihydroxy-, methyl ester;

1, 6-Naphthyridine-7-carboxylic acid, 5-chloro, 8-hydroxy-, methyl ester (this is 1045 of claim 9).

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 2002/085908	31 October 2002	24 April 2002	24 April 2001
WO 2003/010146	6 February 2003	19 July 2002	20 July 2001
WO 2003/016309	27 February 2003	13 August 2002	17 August 2001

WO 2002/085908, see compounds of formula I (folic acid analogs); which fall within the scope of claims 29 and 33.

WO 2003/010146, see examples and claims (quinoline and quinoxaline derivatives); which fall within the scope of claims 1, 2, 5-7, 10-29, 31, 33.

WO 2003/016309, see the 5-sulfonamido-8-hydroxy-1,6-naphthyridine-7-carboxamides; which fall within the scope of claims 29, 31, 33.

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 2 is not clear because on page 165, the 3rd last compound's structure is missing a Nitrogen atom in the pyrido ring, (and similarly for the compound on page 10 lines 1-4). It is named: pyrido[4,3-d]pyrimidin-9-ol.

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of V.2**Inventive Step (IS)**

Claims 1-2, 4-7, 10-29, 31, 33: as above

Excluded Subject Matter

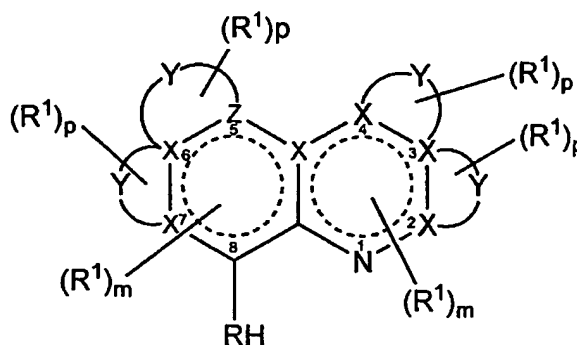
Claims 1 to 22 in some contracting states to the PCT may not be considered subject matter for patents as they implicitly involve the medical treatment of animals including humans.

Industrial Applicability (IA)

While no unified criteria exist for determining what belongs in the category of industrial applicability, there is nothing evident in the claims that would deprive them of affirmation in this category.

- 6 -

5



I

10 in which

R is O or S;

15 R^1 is independently selected from H, optionally substituted alkyl, optionally substituted alkenyl; optionally substituted alkynyl; optionally substituted aryl; optionally substituted heterocyclyl; an antioxidant; a targeting moiety; CN; halo; CF_3 ; SO_3H ; and OR^2 , SR^2 , SOR^2 , SO_2R^2 , NR^2R^3 , $(CH_2)_nNR^2R^3$, $HCNOR^2$, $HCNNR^2R^3$, $CONR^2R^3$, $CSNR^2R^3$, $NCOR^2$, $NCSR^2$, COR^2 , CO_2R^2 , CSR^2 or $SO_2NR^2R^3$ in which R^2 and R^3 are independently selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a
 20 targeting moiety and n is an integer of 1 to 10;

X is independently selected from CH, CO, N and NH;

Z is independently selected from CH, CO, N, NH and O;

25 Y is absent or together with the ring to which it is attached forms a 5- or 6-membered optionally substituted aryl or a 5- or 6-membered optionally substituted heterocyclyl;

m is an integer from 1 to 3; and

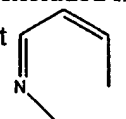
p is an integer from 1 to 4,

salts, hydrates, solvates, derivatives, pro-drugs, tautomers and/or isomers thereof to a subject in need thereof,

30 with the provisos that:

(i) at least one of X and Z is other than CH;

(ii) phanquinone or tautomers thereof are excluded i.e., when R is O, R^1 at position 7 is OH, X is CH and Y is absent, then Z is not



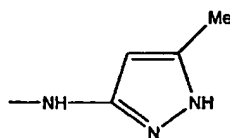
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- 6a -

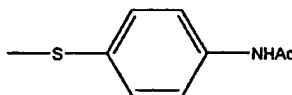
(iii) when R is O, Y is absent, Z is CH,
X is CH other than at position 3

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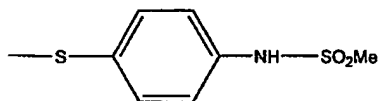
where X is N, m is 2 and R¹ is



at position 3, then R¹ at position 2 is not



or



; and

20

(iv) clioquinol i.e, when R is O, Y is absent,
Z and X are CH and m is 2,
then R¹ at position 5 is not chloro and R¹ at position 7 is not iodo.

Further according to the present invention there is provided use of the compound of formula I in the manufacture of a medicament for the treatment, amelioration and/or prophylaxis of a neurological condition.

The invention also provides use of the compound of formula I for the
5 treatment, amelioration and/or prophylaxis of a neurological condition.

The invention further provides the compound of formula I for use in the treatment, amelioration and/or prophylaxis of a neurological condition.

The invention still further provides use of the compound of formula I as a pharmaceutical, preferably a neurotherapeutic or neuroprotective agent, more
10 preferably an antiamyloidogenic agent. Preferably, the neurological condition is a neurodegenerative condition, more preferably neurodegenerative amyloidosis such as Alzheimer's disease or Parkinson's disease.

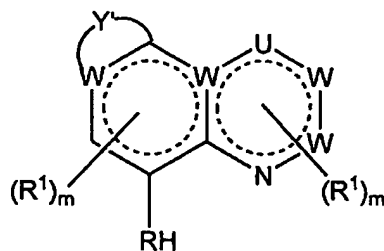
R is preferably O.

R¹ is preferably halo, optionally substituted aryl, optionally substituted
15 heterocyclyl, optionally substituted alkyl, OR², SR², (CH₂)_nNR²R³, CONR²R³ and NCOR² in which n, R² and R³ are as defined above. More preferably R¹ is fluoro; iodo; chloro; optionally substituted phenyl such as 4-halophenyl, for example, 4-fluorophenyl or 4-chlorophenyl; an optionally substituted unsaturated 3 to 6-membered
heteromonocyclic group containing 1 to 4 nitrogen atoms such as imidazolyl or
20 pyridinyl; an optionally substituted saturated 3 to 6-membered heteromonocyclic group containing 1 to 4 nitrogen atoms such as imidazolidinyl or piperazinyl; an optionally substituted saturated 3 to 6-membered heteromonocyclic group containing 1 to 2
oxygen atoms and 1 to 3 nitrogen atoms such as morpholinyl; optionally substituted C₁₋₄ alkyl such as methyl or ethyl; optionally substituted C₂₋₆ cycloalkyl such as
25 cyclopropyl; optionally substituted C₁₋₆ alkoxy; optionally substituted thio; CH₂NR⁴R⁵ in which R⁴ and R⁵ are independently selected from H and C₁₋₄ alkyl; or CONH(CH₂)₂R⁶ in which R⁶ is optionally substituted heterocyclyl.

Y is preferably an optionally substituted phenyl; an optionally substituted unsaturated 5- or 6-membered heteromonocyclic group containing 1 to 4 nitrogen atoms
30 such as imidazolyl or pyridinyl; or an optionally substituted saturated 5 or 6-membered heteromonocyclic group containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms such as morpholinyl.

While not wishing to be bound by theory, it is believed that substituent R¹ has a limited effect, electronically or sterically, in the chelating properties of the
35 compounds of the present invention. Substitution can therefore be used to modulate other parameters such as cytotoxicity and physicochemical properties including the number of hydrogen bond donors and acceptors, lipophilicity (ClogP, ElogP and

A preferred compound of formula I is a compound of formula IA



IA

in which

R, R¹ and m are as defined above;

W is CH, N or NH;

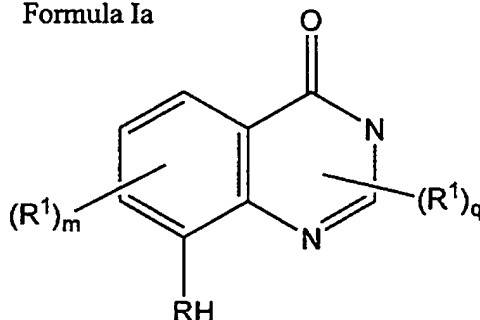
U is CH, CO or N; and

Y' is absent or together with the ring to which it is attached forms

a 6 membered N-containing optionally substituted heterocyclyl.

Preferred compounds of formula IA are as follows:

(i) Formula Ia



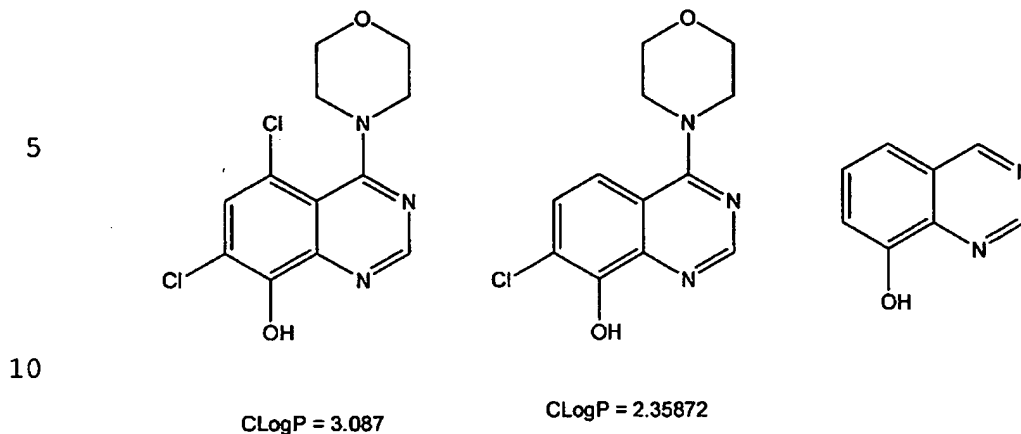
Ia

in which R, R¹, m and q are as defined above.

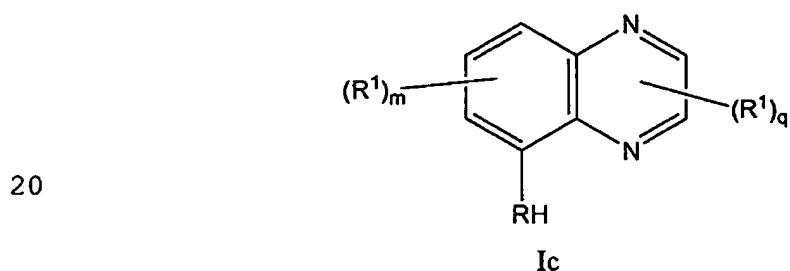
Preferably R¹ is located at positions 2, 3, 5 and/or 7 and is selected from halo, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted alkyl and (CH₂)_nNR²R³ in which n, R² and R³ are as defined above. More preferably R¹ is chloro, optionally substituted phenyl, C₃₋₆ cycloalkyl, CH₂NR⁴R⁵ in which R⁴ and R⁵ are independently selected from H and C₁₋₄ alkyl or optionally substituted pyridinyl.

Particularly preferred examples are shown below.

Preferred examples are shown below.



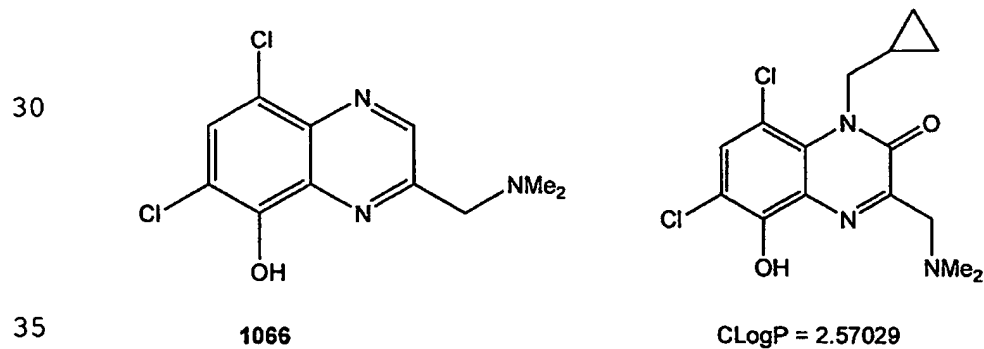
15 (iii) Formula Ic



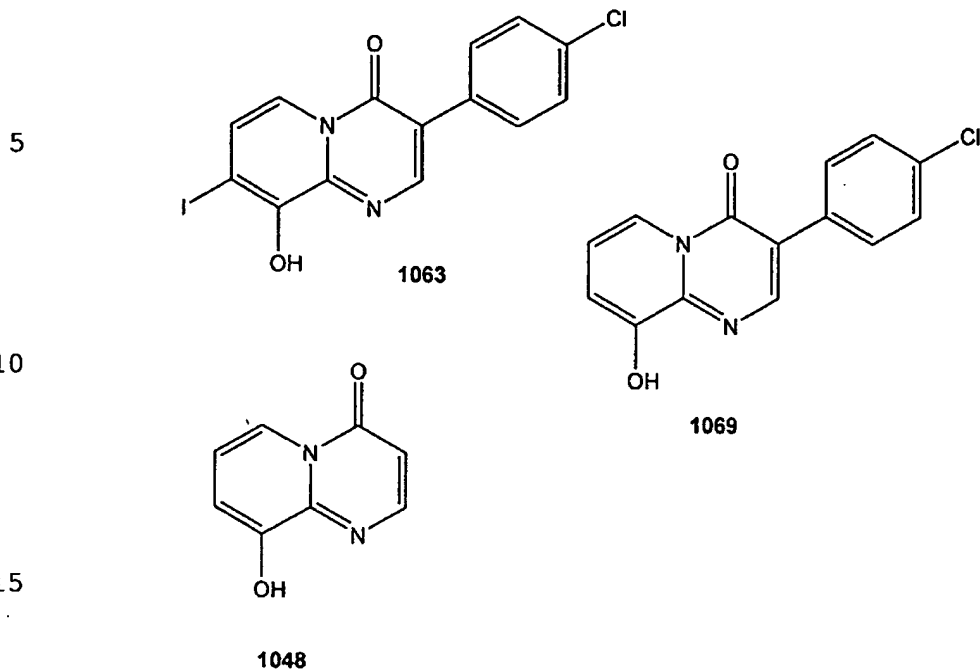
in which R, R¹, m and q are as defined above.

25 Preferably R¹ is located at positions 2, 5 and/or 7 and is selected from halo and CH₂NR⁴R⁵ in which R⁴ and R⁵ are independently selected from H and C₁₋₄ alkyl.

Preferred examples are shown below.

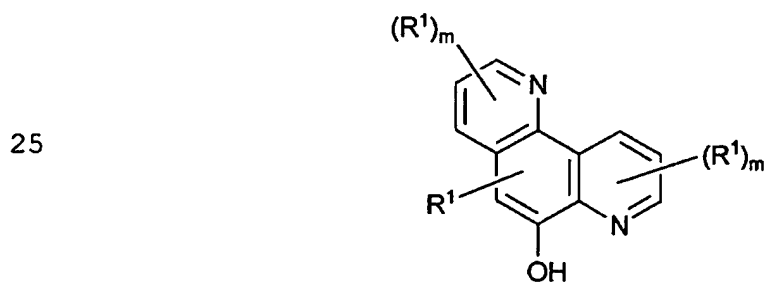


Preferred examples are shown below.



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(vi) Formula If

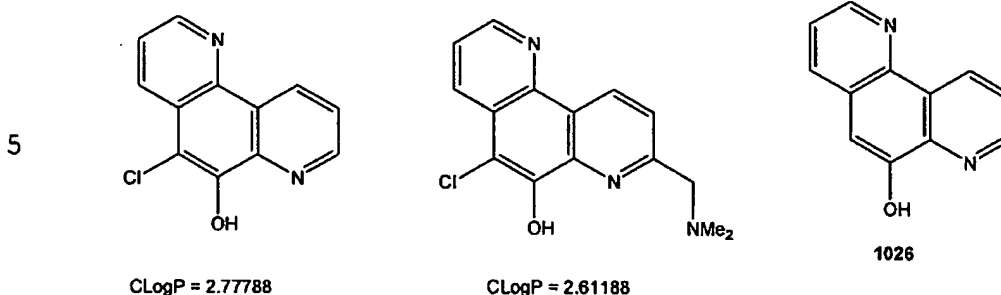


30

in which R^1 and m are as defined above.

Preferably R^1 is located at positions 2 and/or 6 and is selected from halo and $(CH_2)_nNR^2R^3$ in which n , R^2 and R^3 are as defined above.

Preferred examples are shown below.



10 In a further aspect, the invention provides a pharmaceutical or veterinary composition comprising the compound of formula I as defined above, together with a pharmaceutically or veterinarily acceptable carrier.

Some of the compounds of formula I are novel *per se*.

15 Accordingly, the invention provides a compound of formula II which is a compound of formula I with the provisos that at least one R¹ is other than H.

Preferred compounds of formula II are compounds of the formula IA, more preferably compounds of the formulae Ia, Ib, Ic, Id and Ie defined above, most preferably 1045, 1061, 1066, 1053, 1063, 1064, 1065, 1067, 1069 and 1070.

20 The compound of formula II defined above may be prepared using the processes described in detail hereinafter.

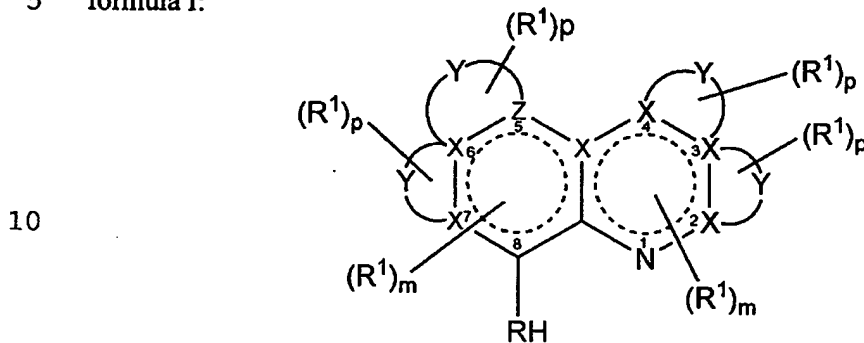
DETAILED DESCRIPTION OF THE INVENTION

25 In the claims of this application and in the description of the invention, except where the context requires otherwise due to express language or necessary implication, the words "comprise" or variations such as "comprises" or "comprising" are used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

30 The term "alkyl" used either alone or in compound words such as "optionally substituted alkyl" or "alkylamino" refers to straight chain, branched chain or cyclic hydrocarbon groups having from 1 to 10 carbon atoms, preferably 1 to 6 carbon atoms, more preferably 1 to 4 carbon atoms. Illustrative of such alkyl groups are methyl, ethyl, propyl, isopropyl, butyl, isobutyl, sec-butyl, tert-butyl, pentyl, 35 neopentyl, hexyl, cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl. Preferred alkyl groups are C₁₋₄ alkyl such as methyl or ethyl and C₂₋₆ cycloalkyl such as cyclopropyl.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A method for the treatment, amelioration and/or prophylaxis of a neurological condition which comprises the administration of an effective amount of a compound of formula I:



I

15 in which

R is O or S;

R¹ is independently selected from H, optionally substituted alkyl, optionally substituted alkenyl; optionally substituted alkynyl; optionally substituted aryl; optionally substituted heterocyclyl; an antioxidant; a targeting moiety; CN; halo; CF₃; SO₃H; and OR², SR², SOR², SO₂R², NR²R³, (CH₂)_nNR²R³, HCNOR², HCNNR²R³, CONR²R³, CSNR²R³, NCOR², NCSR², COR², CO₂R², CSR² or SO₂NR²R³ in which R² and R³ are independently selected from H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heterocyclyl, an antioxidant or a targeting moiety and n is an integer of 1 to 10;

X is independently selected from CH, CO, N and NH;

Z is independently selected from CH, CO, N, NH and O;

Y is absent or together with the ring to which it is attached forms a 5- or 6-membered optionally substituted aryl or a 5- or 6-membered optionally substituted heterocyclyl;

m is an integer from 1 to 3; and

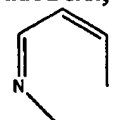
p is an integer from 1 to 4,

salts, hydrates, solvates, derivatives, pro-drugs, tautomers and/or isomers thereof to a subject in need thereof,

35 with the provisos that:

(i) at least one of X and Z is other than CH;

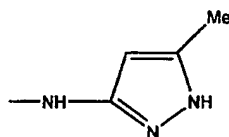
(ii) phanquinone or tautomers thereof are excluded i.e., when R is O, R¹ at position 7 is OH, X is CH and Y is absent, then Z is not



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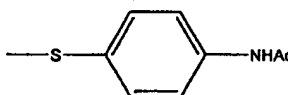
(iii) when R is O, Y is absent, Z is CH, X is CH other than at position 3

where X is N, m is 2 and R¹ is



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at position 3, then R¹ at position 2 is not



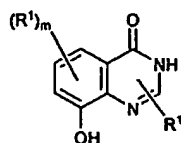
or  ; and

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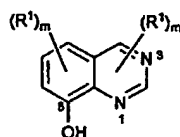
(iv) clioquinol i.e., when R is O, Y is absent, Z and X are CH and m is 2, Then R¹ at position 5 is not chloro and R¹ at position 7 is not iodo.

30 2. A method according to claim 1, in which the compound of formula I is selected from the following:

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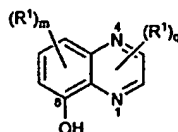


8-hydroxy-4(3H)-quinazolinones;

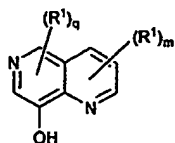


8-hydroxy-quinazoline;

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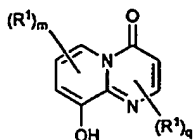


8-hydroxy-quinoxaline;



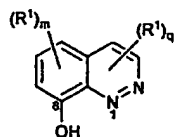
[1,6]naphthyridin-8-ol;

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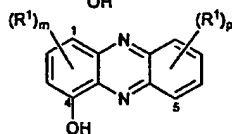


9-hydroxypyrimido[1,6-a]pyrimidin-4-one;

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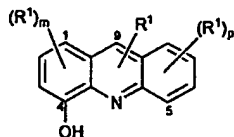


8-hydroxy-cinnoline;



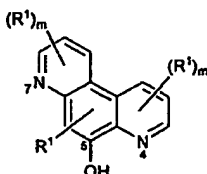
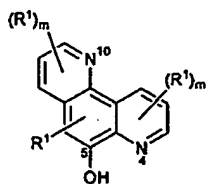
6-hydroxy-phenazine;

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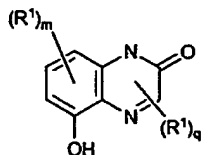
4-hydroxy-acridine;

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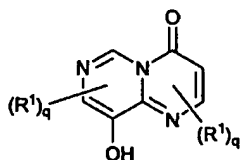


4,7(4,10)-phenanthrolin-5-ol;

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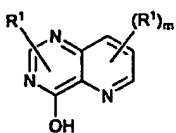
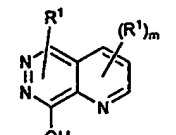
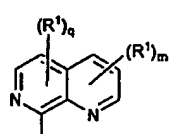
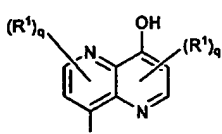
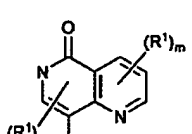
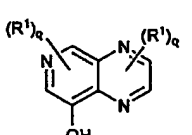
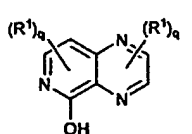
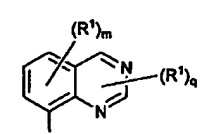
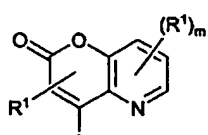
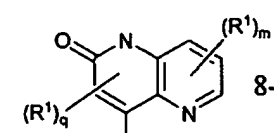
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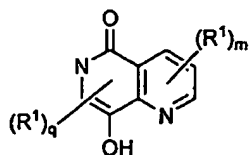


9-hydroxypyrido[1,2-a]pyrimidin-4-one;

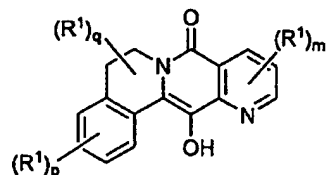
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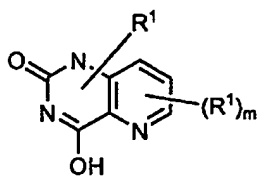
- 5
- 
- pyrido[3,2-d]pyrimidin-4-ol;
- 10
- 
- pyrido[2-3-d]pyridazin-8-ol;
- 15
- 
- [1,7]naphthyridin-8-ol;
- 20
- 
- [1,5]naphthyridine-4,8-diol;
- 25
- 
- [1,5]naphthyridine-8-ol;
- 30
- 
- pyrido[3,4-b]pyrazin-8-ol;
- 35
- 
- pyrido[3,4-b]pyrazin-5-ol;
- 
- pyridol[4,3-d]pyrimidin-8-ol;
- 
- 4-hydroxy-4a,8a-dihydro-pyrano[3,2,b]pyridin-2-one;
- 
- 8-hydroxy-6H-[1,6]naphthyridin-5-one;



8-hydroxy-6H-[1,6]naphthyrin-5-one;



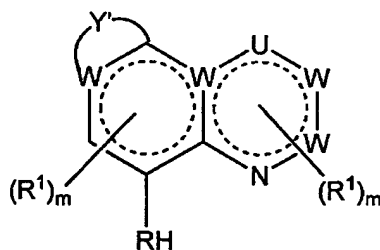
dibenzo[a,g]quinolizin-8-one; and



4-hydroxy-1H-pyrido[3,2-d]pyridin-2-one

in which R^1 , m , n and p are as defined in claim 1 and q is an integer of 1 or 2.

3. A method according to claim 1 or claim 2 in which the compound of formula I is a compound of formula IA



IA

in which

R , R^1 and m are as defined in claim 1;

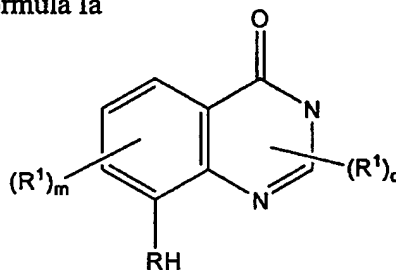
W is CH , N or NH ;

U is CH , CO or N ; and

Y' is absent or together with the ring to which it is attached forms a 6 membered N -containing optionally substituted heterocyclyl.

4. A method according to claim 3 in which the compound of formula IA is selected from the following:

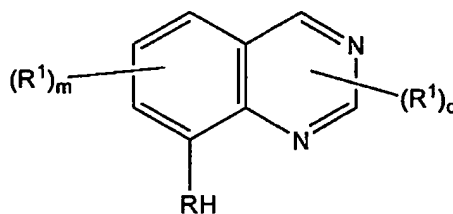
(i) Formula Ia



Ia

in which R , R^1 , m and q are as defined above;

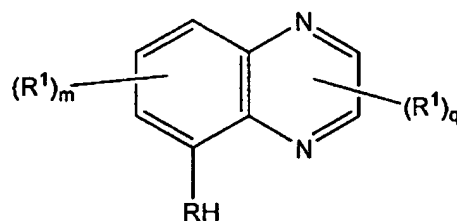
(ii) Formula Ib



Ib

in which R , R^1 , m and q are as defined in any one of claims 1 to 3;

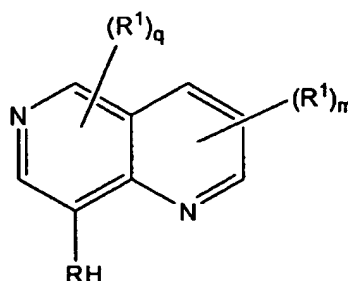
(iii) Formula Ic



Ic

in which R , R^1 , m and q are as defined in any one of claims 1 to 3;

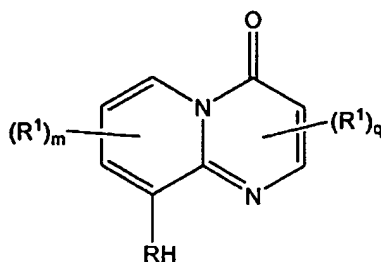
(iv) Formula Id



in which R, R¹, m and q are as defined in any one of claims 1 to 3;

(v) Formula Ie

5

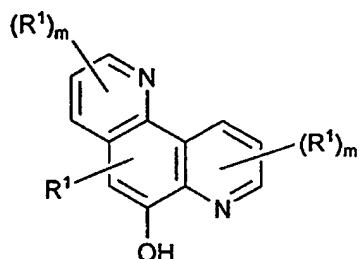


in which R, R¹, m and q are as defined in any one of claims 1 to 3; and

10

(vi) Formula If

15



in which R¹ and m are as defined in any one of claims 1 to 3.

20

5. A method according to any one of claims 1 to 4 in which R in the compound of formula I is O.

25

6. A method according to any one of claims 1 to 5 in which R¹ in the compound of formula I is halo, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted alkyl, OR², SR², (CH₂)_nNR²R³, CONR²R³ and NCOR² in which n, R² and R³ are as defined in any one of claims 1 to 3.

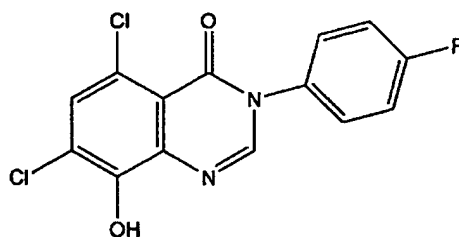
30

7. A method according to any one of claims 1 to 6 in which R¹ in the compound of formula I is fluoro, iodo, chloro, optionally substituted phenyl, an optionally substituted unsaturated 3 to 6-membered heteromonocyclic group containing 1 to 4 nitrogen atoms, an optionally substituted saturated 3 to 6-membered heteromonocyclic group containing 1 to 4 nitrogen atoms, an optionally substituted saturated 3 to 6-membered heteromonocyclic group containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms, optionally substituted C₁₋₄ alkyl, optionally substituted C₂₋₆ cycloalkyl, optionally substituted C₁₋₆ alkoxy, optionally substituted thio, CH₂NR⁴R⁵ in which R⁴ and R⁵ are independently selected from H and C₁₋₄ alkyl or CONH(CH₂)₂R⁶ in which R⁶ is optionally substituted heterocyclyl.

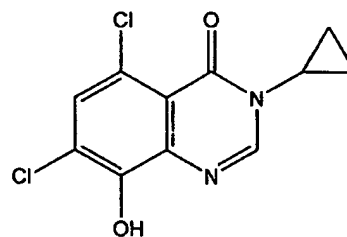
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8. A method according to any one of claims 1 to 7 in which Y in the compound of formula I is an optionally substituted phenyl, an optionally substituted unsaturated 5- or 6-membered heteromonocyclic group containing 1 to 4 nitrogen atoms or an optionally substituted saturated 5 or 6-membered heteromonocyclic group containing 1 to 2 oxygen atoms and 1 to 3 nitrogen atoms.
9. A method according to any one of claims 1 to 8, in which the compound of formula I is as follows:

10

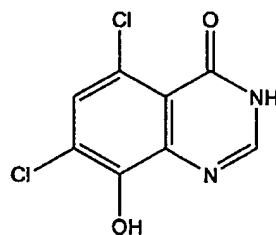


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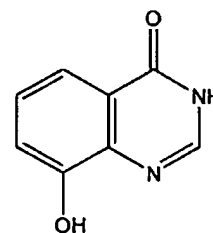


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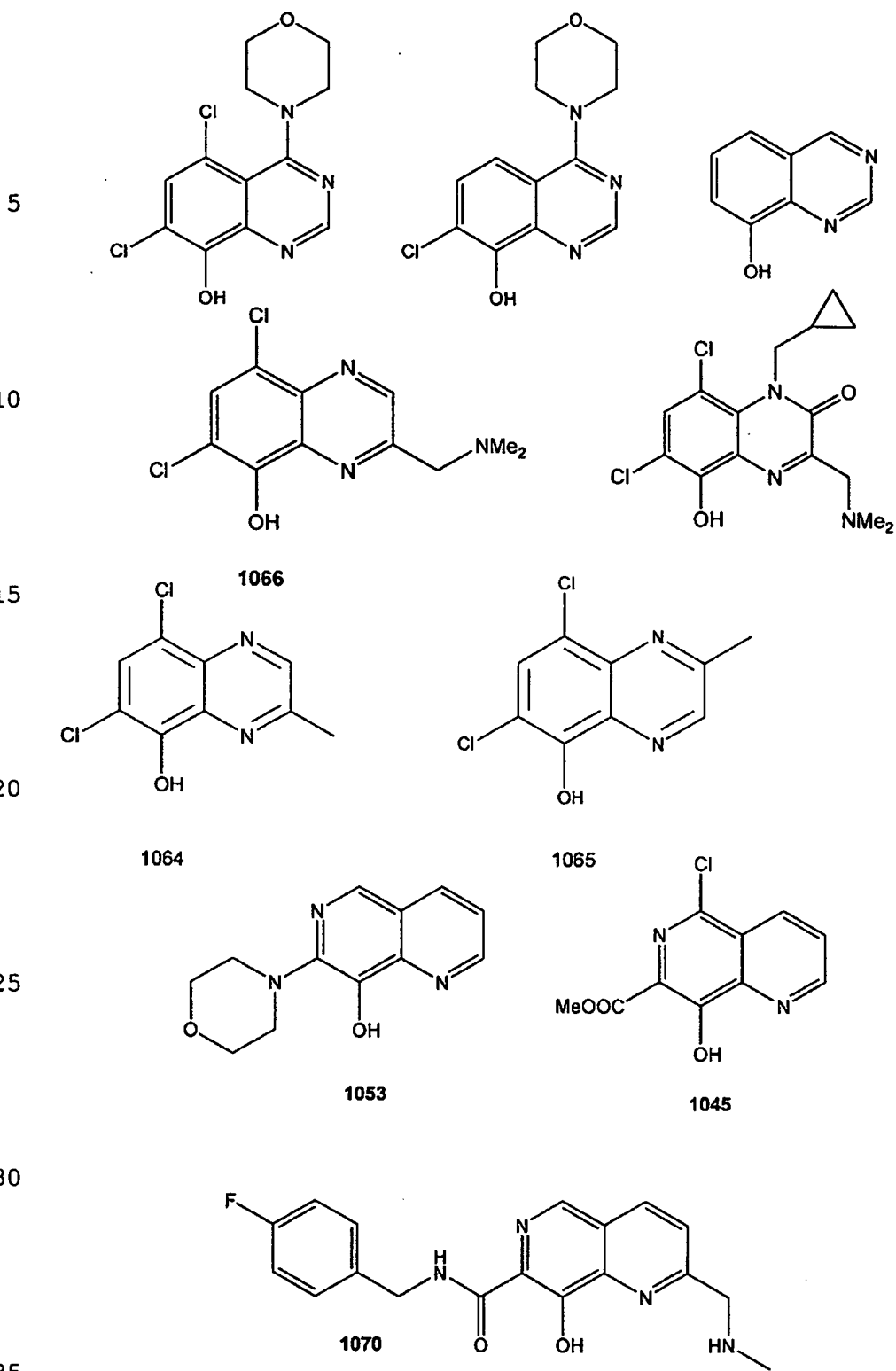
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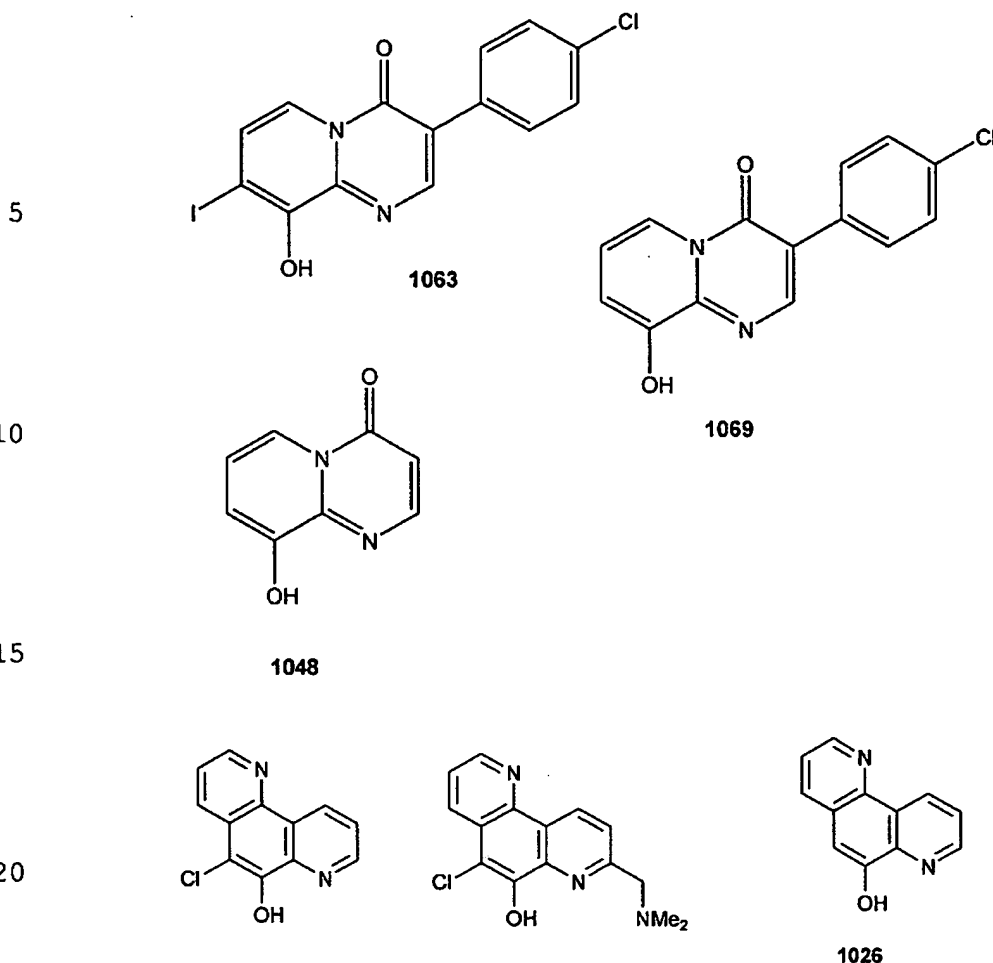
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10. A method according to any one of claims 1 to 9, in which the neurological
25 condition is a neurodegenerative disorder.

11. A method according to claim 10, in which the neurodegenerative disorder is
neurodegenerative amyloidosis.

30 12. A method according to claim 10 or claim 11, in which the neurodegenerative
disorder is sporadic or familial Alzheimer's disease, amyotrophic lateral sclerosis,
cataract, Parkinson's disease, Creutzfeldt-Jacob disease and its new variant associated
with "mad cow" disease, Huntington's disease, dementia with Lewy body formation,
multiple system atrophy, Hallerboden-Spatz disease, diffuse Lewy body disease, fatal
35 familial insomnia, Gertsman Straussler Sheinker disease, hereditary cerebral
haemorrhage with amyloidosis-Dutch type, multiple sclerosis, tauopathies, motor
neuron disease or prion diseases.

13. A method according to claim 12, in which the neurodegenerative disorder is Parkinson's disease.
- 5 14. A method according to any one of claims 10 to 12, in which the neurodegenerative disorder is an A β -related condition.
15. A method according to claim 14, in which the A β -related condition is Alzheimer's disease or dementia associated with Down syndrome or one of several
10 forms of autosomal dominant forms of familial Alzheimer's disease.
16. A method according to any one of the preceding claims which slows, reduces or arrests the cognitive decline of the subject.
- 15 17. A method according to any one of the preceding claims, which further comprises separate, sequential or simultaneous administration of another medicament.
18. A method according to claim 17, in which the other medicament is an inhibitor of the acetylcholinesterase active site, an antioxidant, an anti-inflammatory agent or an
20 oestrogenic agent.
19. A method according to any one of the preceding claims, in which the compound of formula I is administered orally, topically or parenterally.
- 25 20. Use of the compound of formula I as defined in any one of claims 1 to 9, in the manufacture of a medicament for the treatment, amelioration and/or prophylaxis of a neurological condition.
21. Use of a compound of formula I as defined in any one of claims 1 to 9 for the
30 treatment, amelioration and/or prophylaxis of a neurological condition.
22. A compound of formula I as defined in claims 1 to 9 for use in the treatment, amelioration and/or prophylaxis of a neurological condition.
- 35 23. Use of the compound of formula I as defined in any one of claims 1 to 9, as a pharmaceutical.

24. Use according to claim 23, in which the pharmaceutical is a neurotherapeutic or neuroprotective agent.
25. Use according to claim 23 or claim 24, in which the pharmaceutical is an
5 antiamyloidogenic agent.
26. A pharmaceutical or veterinary composition comprising the compound of formula I as defined above in any one of claims 1 to 9 and a pharmaceutically or
10 veterinarily acceptable carrier.
27. A composition according to claim 26 which further comprises another medicament.
28. A composition according to claim 27, in which the other medicament is an
15 inhibitor of the acetylcholinesterase active site, an antioxidant, an anti-inflammatory agent or an oestrogenic agent.
29. A compound of formula II which is a compound of formula I as defined in any one of claims 1 to 9, with the further proviso that at least one R¹ is other than H.
20
30. A compound of formula IA as defined in claim 3.
31. Compounds of the formulae Ia, Ib, Ic, Id, Ie and If as defined in claim 4.
- 25 32. A compound as defined in claim 9 excluding 1049, 1048, 1026 and 1045.
33. A process for the preparation of the compound of formula II defined in claim 29 as described herein.
- 30 34. A compound of the formula:

